Walk Enhancing Smart Device

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People with walking disabilities Find difficulties in performing many activities including walking independently. This invention will help to improve and enhance the motor skill of walking process and to maintain the active mobility during elderliness and sicknesses. The device is mainly consist with light weight leg bracer, motor, muscle sensor with pads, hand held remote controller with blue tooth transmitter, main control box with blue tooth receiver. The device can operate in two different ways using remote controller and mobile phone with Bluetooth signal transmitting system. Alternatively, more convenient method introduced with advance technology, by attaching a muscle sensor to calf of the leg, using electrode pads. When the user start walking, the relevant muscle of the leg will activate and the electrical impulse of muscle activation will transfer through muscle sensor, to the main control and activate the motor and wheel mechanism. This electrical impulse will control, pulling and releasing of leg and back to its original position, keeping it ready for next step. Special features of user statics, such as calculating, walking distance and time, were developed and, in addition user can select the mode of walking, normal exercises or climbing or descending stairs, and these functions could be operated using mobile phone. The software to function the device was developed using ‘C’ programming language and unique mobile app was created using ‘C#’ enhancing other communication process, for future developments.

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